

NEW TAXA OF *DEUTZIA* (HYDRANGEACEAE) FROM SICHUAN, CHINA

Ping He<sup>1</sup> & Lin-cheng Hu<sup>2</sup>

<sup>1</sup> Department of Biology, Southwest China Teachers University, Beibei, Chongqing, P.R. China

<sup>2</sup> Department of Biology, Sichuan University, Chengdu, P.R. China

ABSTRACT .

Two new species named *Deutzia leiboensis spec. nov.* and *D. jinyangensis spec. nov.*, and two new varieties named *D. pilosa* Rehd. var. *longiloba var. nov.* and *D. longifolia* Franch. var. *densitomentosa var. nov.* from Sichuan, China, are described.

KEY WORDS: *Deutzia*, Hydrangeaceae, new taxa, Sichuan, China

*Deutzia leiboensis* P. He & L.C. Hu, *spec. nov.* TYPE: CHINA. Sichuan austro-occid.: Leibo xian, Xilin, alt. 1200 m, May 1983, *C.S. Zhao, et al.* 117166 (HOLOTYPE: SZ). Paratype: Eodem loco, Fongzi-ai, alt. 1200 m, foliis flavo-virides, 4 Jul 1983, *Herb. Univ. Sichuan. Exped. 110396* (SZ).

Species *D. fargesii* Franch. affinis sed foliis chartaceis, elliptico-ovatis vel oblongo-ovatis saepe 3-7 cm longis, 1-3 cm latis, subtus flavo-viridibus, papillis apice pilis 4-6 radiatis praeditis dense gerentibus; calycis lobis persistentibus patentibus differt.

Frutex 1-2 m altus; rami fusco-purpurei, sparse stellato-pilosi, cortice non delapso. Folia breviter petiolata; lamina chartacea, elliptico-ovata vel oblongo-ovata, 3-7(-10) cm longa, 1-3 cm lata, apice caudato-acuminata, basi late cuneata vel subrotundata margine minutissime denticulata, supra viridis, pilis stellatis 3-5 radiatis sparse conspersa, subtus flavo-viridis, papillis apice 4-6 radiatis praeditis gerens, nervis lateralibus utrinsecus 2-3; petioli 1.0-3.5 mm longi. Cyma 3.0-5.5 cm diam., 3-20-flora, pedunculis gracilibus, 2.0-2.5 cm longis, pilis 4-6 radiatis sparse pubescentibus; pedicelli 1-4 mm longi dense stellato-pilosi; calyx 2.8-3.2 mm longus, 1.0-2.2 mm latus, extus pilis 8-12 radiatis dense vestitus,

lobis deltoideis. ca. 0.8-1.1 mm longis, petala alba, oblonga, 4.0-6.5 mm longa, 1.2-2.0 mm lata, extus 8-10 radiato stellato puberula, intus glabra; stamina exteriora ca. 3-4 mm longa, filamentis late linearibus apice 2 dentatis, ea interiora spatulatis, ca. 3.0-3.5 mm longis, dentibus connatis, antheram juxta apicem affixam gerentia; styli 3, ca. 3 mm longi. Capsula subglobosa, 5 mm diam., calycis dentibus persistentibus patentibus.

This species is similar to *Deutzia fargesii* Franch., from which it differs in leaves chartaceous, elliptic-ovate or oblong-ovate, lower side of lamina yellowish green, covered with stellate hairs with a short stalk attached on the surface of lamina and therefore the hairs not keeping close to lamina surface.

*Deutzia pilosa* Rehd. var. *longiloba* P. He & L.C. Hu, var. nov. TYPE: CHINA. Sichuan occid.: Emei xian, Mt. Emei, May 1984, P. He 830083 (HOLOTYPE: SZ). Paratypes: Eodem loco, P. He 830084 (SZ); Eodem loco, G.H. Yiang 54556 (SZ); Eodem loco, G.H. Yiang 55510 (SZ).

A typo recedit foliis longioribus saepe ovato-oblongis, 5-10 cm longis, 2-4 cm latis, subtus flavo-viridibus, calycis lobis longioribus, triangulo-lanceolatis, 1.5-2.5 mm longis, stellato-pilis heteromorphis dense vestitis; filamentis exterioribus apice 2 obtusidentatis, dentibus antheram non superantibus vel subaequantibus, calyx dentis persistentibus patentibus.

The new variety differs from *Deutzia pilosa* Rehd. var. *pilosa* chiefly in lamina 5-10 cm long, 2-4 cm wide, lower side yellowish green, calyx teeth triangular-lanceolate, 1.5-2.5 mm long, outer filaments with two teeth not exceeding the anther and persisting calyx teeth straight, spreading.

*Deutzia jinyangensis* P. He & L.C. Hu, spec. nov. TYPE: CHINA. Sichuan austro-occid.: Jinyang Xian, Liangshan Chin. Medic. Exped. 170 (HOLOTYPE: SICM = Herbarium of Sichuan Institute of Chinese Medicine). Paratypes: Huidong Xian, Duge Xiang, alt. 2700 m, 21 Jul 1959, S.G. Wu 1189 (SZ); Huidong Xian, Duge Xiang, alt. 2700 m, 21 Jul 1959, S.G. Wu 1811 (SZ).

Species *D. purpurascens* (Franch.) Rehd. affinis, sed foliis chartaceis, subtus albidis, densissime stellato-puberuli. Cymis compactis, 1.5-2.5 cm diam., pedicellis brevioribus 1-4 mm longis, filamentis interioribus complete connatis, attenuati (nec foliis membranaceis, subtus viridis, sparse stellato-puberulis; cymis laxis, 2.5-4.5 cm diam., pedicellis 10-15 mm longis, filamentis interioribus obtuis, 2 dentatis vel irregular dentatis) differt.

Frutex 1-2 m altus; ramuli fertiles 2.5-5.5 cm longi, 2-4(-6) phylli, juveniores initio sparse stellato-pilosi, purpureo-brunnei, gemmae perulis late ovatis stellato-pilosi, 1.0-2.5 mm longis, 1.2-2.0 mm latis. Folia petiolata; lamina chartacea, subpersistens, ovata vel ovato-lanceolata, 2.5-5.0 cm longa et 1.5-2.5 cm lata, apice acuminata, basi subtruncata vel late cuneata, margine densissime denticulata, supra viridis, pilis 4-5(-6) radiatis sparse conspersa, subtus albida, pilis (6-)7-10 radiatis dense obtecta ad costam nervosque sine simpliciter puberula, nervis lateralibus utrinsecus 3-4; petioli 2-4 mm longi, pilis 8-11 radiatis obtecti. Cyma 1.5-2.5 cm diam., pedicelli 1.1-4.0 mm longi, calyx 6-7 mm longus extus densissime 8-12 radiato stellato puberulus, lobis lanceolatis, 3.0-3.5 mm longis; petala intus alba, glabra, extus rubra. anguste-obovata, 7-10 mm longa, 4.5-6.0 mm lata, 8-10 radiatis stellato puberula; stamina exteriora ca. 5.0-6.5 mm longa, filamentis linearibus, dentibus complete connatis, apice attentis antheram juxta apicem affixam brevissime stipitatam gerentia; styli 3-4, ca. 5-6 mm longi. Capsula hemispherica, 3.0-4.5 mm diam.

The new species resembles *Deutzia purpurascens* (Franch.) Rehd., from which it can be easily distinguished by leaves chartaceous, lower side albinotic, more densely covered with stellate hairs; cyme more dense, 1.5-2.5 cm in diam., pedicels only 1-4 mm long; inner filaments completely connate, attenuate (not leaves membranous, lower side green, sparsely covered with stellate hairs; cyme lax, 2.5-4.5 cm in diam., pedicels 10-15 mm long and inner filaments obtuse, with 2 teeth or irregular teeth at apex as in *D. purpurascens*).

*Deutzia longifolia* Franch. var. *densitomentosa* P. He & L.C. Hu, var. nov. TYPE: CHINA. Sichuan austro-occid.: Leibo Xian, 257 Linquan-zhan, alt. 2170 m, 13 Jul 1983, C.S. Zhao & Z.J. Zhao 119719 (HOLOTYPE: SZ). Paratypes: Eodem loco, Lailin-qu, C.S. Zhao & Z.J. Zhao 121299 (SZ); Eodem loco, Shanlen-gan, C.S. Zhao & M.Y. He 12209 (SZ); Eodem loco, Shanlen-gan, C.S. Zhao & M.Y. He 122698 (SZ).

A *D. longifolia* Franch. typica differt plerumque foliis supra dense 6-11 radiati stellato-pilosis pilis adpressis conspersis, subtus densissime 12-17(-18) radiatis stellato-puberulis (nec supra sparse 5-6 radiatis, subtus 8-14 radiatis radio centrali instructis).

The variety can be easily distinguished from *Deutzia longifolia* Franch. var. *longifolia* by upper side of leaves more densely covered with 6-11 rayed appressed stellate hairs, lower side covered with 12-17(-18) rayed adpressed stellate hairs without central ray (not upper side of leaves sparsely covered

with 5-6 rayed stellate hairs, lower side covered with 8-14 rayed stellate hairs with central ray as in *D. longifolia* var. *longifolia*).

#### ACKNOWLEDGMENTS

The field work and herbarium visits of the first author were partly supported by grants from the *Flora Sichuanica* foundation and the authors wish to thank Prof. Dr. Z. He and Prof. Dr. J.H. Xiong of Southwest China Agriculture University of China for reviewing the manuscript.